The Compendium

Institute of Aeronautical Engineering (Autonomous)

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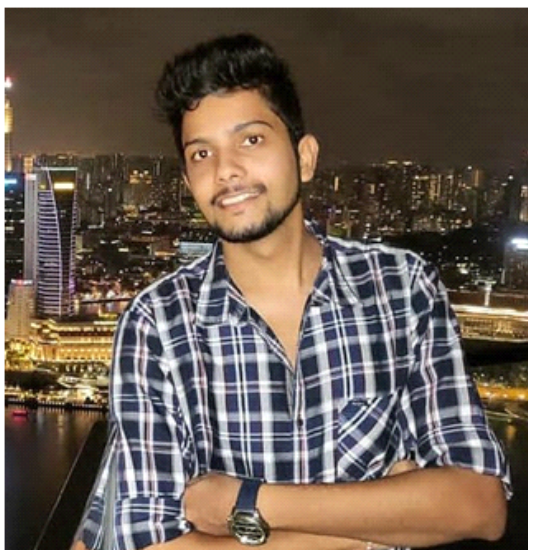
STUDENTS SHARE THEIR FSI EXPERIENCES

Institute of Aeronautical Engineering (IARE) has initiated collaborations with many top-notch universities around the world in countries like Indonesia, Malaysia, Vietnam, Korea, Singapore, Thailand, and the United States of America. Collaborating with other universities and sharing knowledge as well as resources with universities and academic communities throughout the world is an important part of the Institute of Aeronautical Engineering's international mission. Through its strategic partnerships with the universities around the globe, the institute offers student exchange programs for B.Tech, M.Tech and MBA students, as well as opportunities to intern with them.



Hardik Nahata, 16951A0546, of Department of Computer Science and Engineering (CSE) did his full semester internship at Nanyang Technological University, Singapore from August 2019 to December 2019 (5 Months). He worked on a project titled "Deep Learning Solutions for Skin Cancer Detection and Diagnosis". Skin cancer is a concerning public health predicament, with over 5 million newly identified cases every year just in the United States. Even though the mortality is significantly high, but when detected early, the survival rate exceeds 95%. This motivates us to come up with a solution to save millions of lives by early detection of skin cancer. The project aims to develop a Deep Convolutional Neural Network (DCNN) model for the classification of skin cancer. Hardik shares his experience with us saying "I was selected for the NTU-India Connect Research Program by Professor Jagath C Rajapakse to pursue research in the Biomedical Informatics Lab, School of Computer Science and Engineering, Nanyang Technological University, Singapore. Professor Jagath has been a visiting Professor at Massachusetts Institute of Technology (USA), Visiting Scientist at the Max-Planck-Institute of Brain and Cognitive Sciences (Germany). I am elated to share that it was an honor working for him. He has been brilliant and humble guide. Experiencing the life of a student at NTU was no less than a luxury one would dream of. The smart campus, lush greenery, labs, people, recreational facilities, everything was top-notch. No wonder NTU is Ranked #1 in Asia for Engineering and Technology. There were events almost every week pertaining to academics, sports, and recreation. I recall an event called 'A Night Gazing the Stars', where we used professional electronic telescopes to record live images of planets. It was a mesmerizing night. The part which I admire the most about NTU is energy conservation. All the lights across the 500 acres campus were sensor controlled. At NTU, there were many students on exchange from various countries. I made friends from Germany, Denmark, Vietnam, China and more. It was exciting to know about their cultures and lifestyles." He continues, "Singapore, the Lion City, is one of the most developed countries in South-East Asia. It has clean roads, excellent infrastructure, and is a tourist's paradise. Though being a small city, it has numerous attractions to visit. Having the perk of staying a long time on an employment pass in Singapore, I discovered the city by the streets. My favorites were the Marina Bay Sands, Universal Studios, Lazarus Island and Club Street in Chinatown. Overall, I had an eclectic experience during my semester abroad. I highly encourage juniors and peers to go for FSI and have international exposure. It does add to your experiences of life. Also, feel free to know more about me at www.hardiknahata.com. I would also be happy to help you with any internship/study-related queries. You can drop me an email at contact@hardiknahata.com."

Jay Karan Telukunta, 16951A0556, Department of Computer Science and Engineering (CSE) also did his internship at Nanyang Technological University, Singapore from August 2019 to December 2019 (5 Months).He worked on a project titled "Structural Health Monitoring using Machine Learning and Neural Networks Deployed in Edge Computing Node". Singapore is a developed country in terms of economy and technology. The government takes the utmost care of the citizens using cutting edge technologies. The country invests in smart assets to make the country smarter. So, there is a high probability of deterioration and failure of these assets due to various factors. It was identified that it is essential to address this to avoid human and infrastructural loss. With the impulsive power of Remote Sensing Networks along with the adoption of 'Edge-Computing' and extended Cloud Services, the project was developed as an IoT solution, which aims at Seamless Monitoring and Analysis of these Assets which are also deployed in regions where the internet is futile.Karan shares his experience with us saying, "This international research experience offered me very meaningful takeaways about unknown technological developments around the globe. On professional lines, it taught me how industry-oriented research works, how R&D plays a role in government-related project developments and how corporate etiquette works. On personal lines, it taught me a lot about global politics, traveling and its beauty, self-dependency, and self-control.Coming to my workplace, it was a Research Institute at NTU.

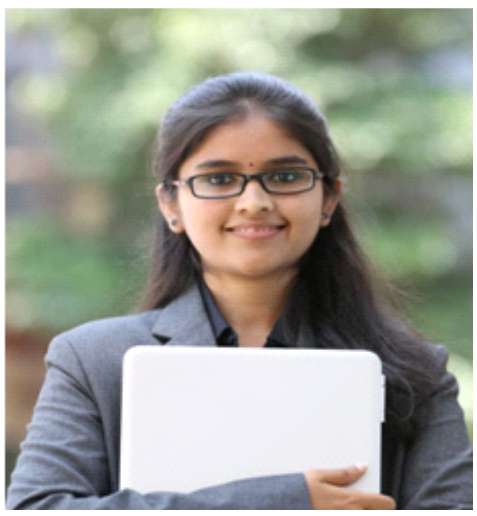
It had a few amazing minds from around the globe. I had a chance to network with several bright students from China, Japan, Singapore, India, and Canada at my workplace. I experienced some of the best green ecosystems at my workplace. I was under the direct supervision of the Programme Director and Research Scientist, which allowed me to understand his experiences, which in turn were my learnings. My overall impression of the experience was marvelous. Universities, Labs, Research, Conferences, Nights, Fests, Events, Places, Islands, Beaches, Skyscrapers, Shopping, Food and a lot more are part of my wonderful 5 month journey."

G Sai Ruchith Reddy, 16951A05G4, and P Sai Charan,16951A05F3, Department of Computer Science and Engineering (CSE) completed their internship at King Mongkut's Institute of Technology Ladkrabang, Thailand from June to September 2019. Their project was titled "Photo Realistic Image Synthesis using SPADE Algorithm". Synthesizing high-resolution photorealistic images has been a challenge in the deep learning field until the neural network methods GAN, conditional GAN, Pix2Pix, etc., have arrived. One of the methods to generate a photorealistic image that was invented NVidia is SPADE which generates photorealistic images from a segmentation mask better than the earlier models. This project deals with the training, testing and exploring the design and the implementation of the algorithm SPADE. SPADE uses most of its implementation on the earlier methods like GAN, Pix2PixHD, and VAE with some changes, so this involves the details and implementation of the above methods. Training and testing the model with various sizes of data from the coco dataset are done.Ruchith and Charan share their thoughts with us saying, "It was a great experience working at KMIT. The professors were really good. The technology was high end. We learned a lot from working in that environment. They had advanced GPU and software which helped our project a lot. The equipment there is excellent. They have collaborations with different companies and government organizations. We also had a chance to give presentations to various personalities from Japan and China".

R. Greeshma, 16951A0123, Department of Civil Engineering, (CE) did her internship at the University of Alabama, the USA from June to September 2019. Her project was titled "Interface Shear of UHPC" Ultrahigh performance concrete (UHPC) is an advanced cementitious material that has excellent mechanical and durability properties, making it appropriate for the rehabilitation of concrete structures. This paper investigates the usage of a thin layer of UHPC over-laying an ultra-high performance concrete (UHPC) structures or deck. The behavior of the interface connection will have a significant impact on the overall structural and durability performance of the UHPC-UHPC homogeneous deck system. An integrated experimental and analytical study was conducted to understand the influence of several variables, such as ultra-high performance concrete strength, interface roughness, and curing condition on the shear transfer behavior across the interface between UHPC and UHPC. The laboratory testing was performed to check the shear failure along with the interface. The laboratory test performed was a push-off test. A total of thirty-six test units with four different surface textures were loaded to failure. The push-off test is a nonstandard, but widely recognized, a test used in the testing of shear in concrete. The push-off test results may be demonstrated that the shear transfer across the interface is adequate for overlay applications for all textures. The interface bond strength was not affected by curing conditions (heat treatment or ambient) used for UHPC.Greeshma shares her experience with us saying, "Being overseas for a project has brought exposure and a lot of confidence in me. I've learned many things during the internship. It was my first visit out of the country and I feel blessed for getting this opportunity. The very first thing I've acquired is being independent and managing everything by myself. Talking about the project, the professor has been a very supportive mentor and I was the only international student being mentored under him. The professor was also Indian, which made it easier to communicate. The students at the university were humble and welcoming too. After the visit to Alabama, few questioned me about what I gained from the visit to which my answer was, experience. I got to meet different people from various places and learned how to communicate along with the knowledge I've gained from the project."

Nimmala Dheeruja, 16951A2114, and **Gundavarapu Indira Lakshmi**, 16951A2125 from the Department of Aeronautical Engineering (AERO) did their internship at the University of Malaya, Malaysia from August to October 2019. Their project was titled "CFD Analysis of Convection cooling used in Gas Turbine Blade"An internship program that comes under a mobility program is a non-graphic research internship". This study focuses on the CFD simulation of the cooling process, considering a three-dimensional gas turbine blade to investigate the heat transfer and the influence of flow characteristics. The turbine blades in a gas turbine engine work in high temperatures, which requires are compared and discussed to understand the crucial role of gas turbine blade cooling technologies. Cooling to prevent any structural damage. In this analysis, the cooling effect on a turbine blade is simulated such as convection and transpiration cooling techniques when compared to a turbine blade without any cooling. A 3D-model using the turbine blade coordinates is generated in CATIA, which is meshed in HYPER MESH and analyzed in the FLUENT 18.2. Along with CFX. The results obtained are in the post process.Dheeruja and Indira share their experience with us saying, "It was a nice experience. We were there for around 3 months. It's a culturally vibrant place. There were lots of cultural differences; students from different countries like Germany, Turkey, Spain, Egypt, the Philippines were at the university. We made friends from different parts of the world". Learning to handle things by yourself with proper guidance is the best way of learning. This is what we have discovered from the internship at the university. The professors were really helpful. Both the professor and the students show equal responsibility in the work. We had work stations which we visited almost every day on weekdays. The work stations have powerful computers, the latest software and are all updated. People are aware of the usage of different software in complex cases. We learned the way they handled the software, learned how to coordinate with the professors, how active is the research environment and also how to go about a project, for instance if one thing does not work, there is always something else we would plan and go ahead with."

Ettadi Mounika, 17951E0042 from the Department of Master of Business Administration (MBA) has done her internship at the University of Malaya, Malaysia from August to October 2019. Her project was titled "The Impact of Revamping FDI in Emerging Economy - India".FDI plays a vital role in the growth of an economy by providing the opportunity of business expansion, well-developed infrastructure, sustain invention and innovation by having technological awareness, and hence results in the growth of the overall economy. FDI affects the economic growth of India. When evaluating the correlation between FDI and economic growth, we take into account that investment affects economic growth. Empirical studies indicate that FDI has a positive effect on economic growth. Studies show that there is a relation between these two factors, although, due to the influence of other factorial variables, economic growth can be significant at times. In this article, I studied the relation between the Foreign Direct Investment flows, which is called factorial, and the resulting measure, economic growth. The quantitative study was carried out using econometric models that can also be used to forecast economic trends and Conclusions were drawn using STATA_14 software using various regression models.Mounika shares her experience with us saying "I felt very comfortable while researching at UM. I liked the sense of inquisitive minds of people around ther''. We discussed freely with our professors. The atmosphere within the campus is very friendly, as it is one of the best universities that we have come to know. With more than 60 Research Centers under 6 Research Clusters, it is one of Malaysia's premier Research Universities and one of the leading Research Universities in Asia. With more than 700 international collaborative partners it offered prestigious opportunities for students whether through Student Mobility Programmes or Joint Research. Researching at UM has been one of the best experiences for us. I am very glad to have the opportunity to do my research work at the University of Malaya."



Perla Alekhya, 17951E0001 from the Department of Master of Business Administration (MBA) did her internship at the University of Malaya, Malaysia from August to October 2019. Her Project was titled "Impact of Corporate Social Responsibility on Firm's Financial and Marketing Performance on Indian Firms."This project investigates the effect of Environmental, Social and Governance (ESG) factors on the financial performance measured mainly by Return on Equity (ROE) and Returns on Assets (ROA) of Indian organizations. We examine the three factors separately to disentangle the relation of each with performance. The study includes a sample of 110 companies covering the period of 2013-2018. The relationship of Environmental, Social and Governance rankings with various financial and marketing parameters was examined. We observed that the relationship between ROA, ROE, EPS and ESG score has a positive impact on the organizations and is statistically significant. Organizations do not differ in their systematic risks, book-to-market ratios and size. However, we show that Research and Development (R&D) and Net sales of the firm also have a positive impact on various organizations. Conclusions were drawn using Stata software using various regression models. However, high-ranked firms are consistently larger. Our findings demonstrate that Indian investors can incorporate environmental, social and governance criteria into their investment strategies without incurring any significant cost in terms of risk or return. High-CSR firms also experienced higher profitability, growth, and sales per employee relative to low-CSR firms, and they raised more debt. This evidence suggests that the trust between a firm and both its stakeholders and investors is increased or improved. This also provides interesting implications because firms' ESG represents most of the companies' contributions to environmental preservation, social wellbeing, and community development.Alekhya shares her experience with us saying, "In terms of the research environment, I received tremendous support from our supervisor Datin Dr. Izlin Ismail. She was very friendly and the research methods taught by her allowed me to use the advanced knowledge that is now appreciated by both academic's and practitioners. I have been exposed to a real practical environment at Wisma Research and Development center used for our research work. I had access to every facility and I got a chance to know, interact and work with many great people as it is also the hub for talented and excellent students. I have seen many students from different countries; they are very friendly and cooperative as UM has hosted more than 3,000 international students from over 85 countries at the undergraduate and postgraduate level. Researching at UM has been one of the best experiences for me. I am very glad to have had the opportunity to do my research work at the University of Malaya."

" SMART INDIA HACKATHON-2020 "

Smart India Hackathon 2020 was conducted at IARE on the 10th of January 2020. SIH is a nationwide initiative to provide students a platform to solve some of the pressing problems we face in our day to lives, and thus inculcate a culture of product innovation and a mindset of problem-solving. This is the 4th edition initiated by the Ministry of HRD.In SIH 2020, the students got an opportunity to work on various challenges faced within Ministries, Departments, Industries, PSUs and NGOs to create world class solutions for some of the top organizations including industries in the world, thus helping the private sector hire the best minds from across the nation. It builds funnel for various 'Startup India' campaigns.It not only provides an opportunity for citizens to provide innovative solutions to India's daunting problems but harnesses the expertise of students from AICTE/UGC approved institutions like IIT's, NIT's and IISC.Many students of IARE formed teams and participated in the competition from various departments. Eight teams got nominated in two categories, software, and hardware. In the software category, six teams got selected. The first team included Sharwan Solanki, H Sai Charan, S Sai Hasini, G Sai Kumar, Rushita Pasam, and M Sathvika. Their problem statement was 'Stray Cattle Challenge' which fell under the Ministry Category of Government of Goa. M Mohan Reddy, Ch Ramya Sree, K Preethi, S Priyanka, A Raju, P Mahesh Babu were the members of the second team that got selected. Their problem statement was 'Artificial intelligence-enabled robotic trash boat to drive and harvest floating trash from the urban drain' which fell under the Ministry of Jal Shakti category. A Siddarth, S Siva Abhishek, K Sindhu, B Sravani, V Sneha, K Vanaja were the members of the third team that got selected. Their problem statement was about 'Warning System for Driver'. B Yashwanth, Varsha Monala, B Vasumath, C Vindhya, Surya Mukunda, M Yasaswi were the members of the fourth team that got selected. Their Problem Statement was about 'Tourism simplified through voice'. CMS Ravi Teja, M Rahul, N Sai Ram, K Alakananda, K Meghana Reddy, V Navya Sri were the members of the fifth team that got selected. Their problem statement was about the 'Detection of Malicious Contents/Web Links Related to Cyber Frauds'. K Nikitha, Vasundhara, J Divya, R Ashish, K Manoj, Jaswanth were the members of the sixth team that got nominated. Their problem statement was about 'Shopping using Augmented Reality'. In the hardware category, two teams were nominated. The first team had the members B Saketh, Sravan K, Aditya Lya, M Pramod, B Prayuktha, G Pratyusha. Their problem statement was about 'Smart Vehicles'. The second team consisted of A Kevin Charles, V Navya Sree, Ruchika Shaji, M Sushma, S Nivesh, Y Rahul. Their problem statement was about Mini Hydropower projects for Schools which came under the Ministry category of the Government of Sikkim.

1st YEAR TOPPERS

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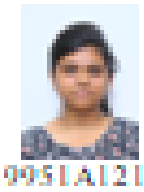

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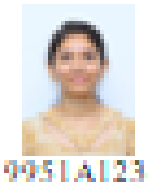

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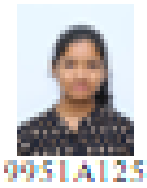

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NALLA PRANEETH REDDY
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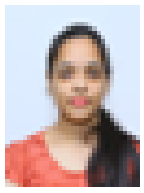

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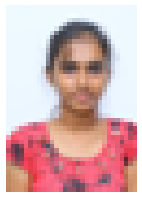

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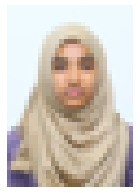

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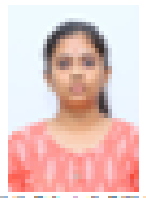

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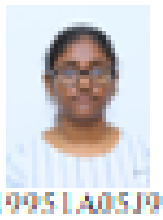

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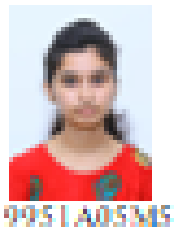

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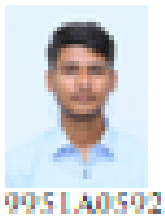

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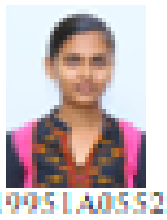

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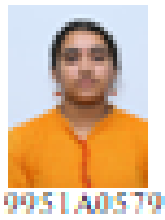

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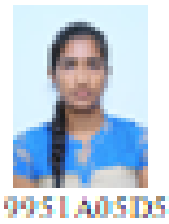

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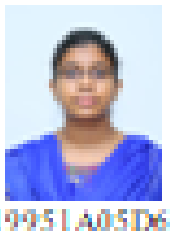

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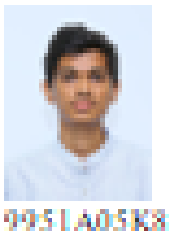

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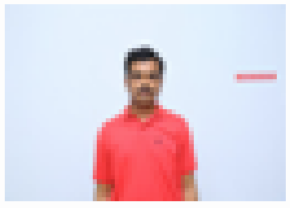

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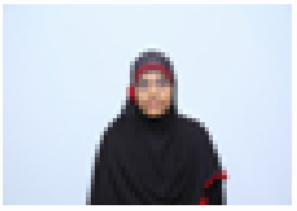

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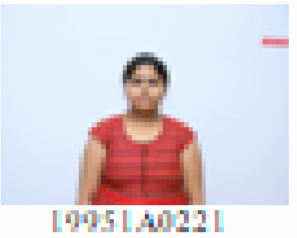


19951A0221
MECHINENI KEERTHANA
8.84

CIVIL

19951A0135
AKULA NAVYA SREE
9.23

CIVIL

19951A0143
M PRAJWALA
9.23

CIVIL

19951A0131
ANKAM MOHANA KRISHNA
9.1

CIVIL

19951A0166
RAYAPUDI SANJANA
9

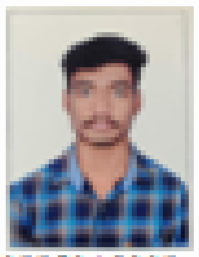
CIVIL

19951A0120
KEERTHANA KUNCHALA
8.97

CIVIL

19951A0128
MD RAHEMAT
8.97

CIVIL



19951A0119
BANAVATH KALYAN
8.9

CIVIL

19951A0157
BOGARAJU SAINATH
8.9

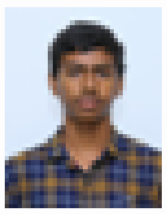
MECH

19951A0326
MUNIPALLY MAHESH
9.03

MECH

19951A0361
BODAPATLA SHARAD SOURAB
9.03

MECH



19951A0346
CHIRUKURI SAGAR
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MECH

19951A0369
SYED JAMEEL AHMED
8.91

MECH

19951A0332
UPPUNUTHALA MUKUNDA CHARY
8.84

MECH

19951A0354
SAMEER JOSHI
8.84

MECH

19951A0357
MEDISETTY SASI KIRAN
8.81

2nd YEAR TOPPERS

AERO

18951A21A7
K VAISHNAVI REDDY
9.36

AERO

18951A2196
T S CHANDRIKA
9.32

AERO

18951A21B5
R VISHAL RAJ
9.18

AERO

18951A2106
M AMULYA
9

AERO

18951A2158
SYEDA NEEDA FATHIMA
9

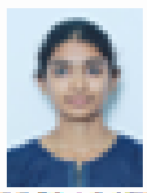
AERO

18951A2179
Y SAI GOUTHAM
8.95

ECE

18951A0422
BELLAM ASRITHA
9.82

ECE



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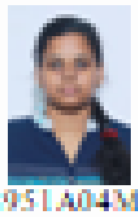

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VEDHINI SAI YELIKE
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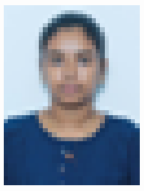

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BOKKA REKHA TARUNYA
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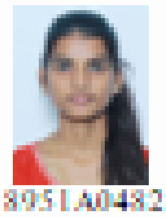
ECE

18951A04H3
BOJJA SHARANYA
9.64

ECE



18951A0482
GUTHI MALATHI
9.5

ECE

18951A04M1
BUDDU VAISHNAVI
9.5

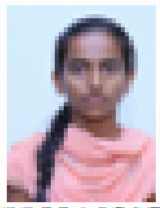
ECE

19955A0416
N SAI PRANAVI
9.5

ECE

19955A0413
BANOTH PRAVEEN NAYAK
9.48

EEE



19955A0217
GADILA SHREESHA
9.14

EEE

19955A0220
SIDDIRALA SHRAVAN KUMAR
9.14

EEE

18951A0277
JEEDIPALLY SARIKA
9

EEE

18951A0285
A SRI SATYA RAMYA
8.95

EEE

19955A0208
VEMUNURI PRANAY
8.82

EEE

19955A0210
RAMAGIRI RAHUL
8.82

EEE

18951A0239
PUTLURI MEGHANA
8.68

EEE

18951A0291
PANJA SUMALATHA
8.68

EEE

19955A0202
SAMBU DURGESH
8.68

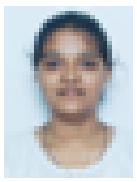
IT

18951A1296
PADALA SNEHASANJANA
9.86

IT

18951A1217
BANA BHARGAVI REDDY
9.73

IT



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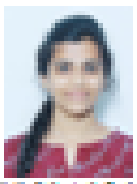
DIDIGAM SAI BHAVANA
9.45

IT

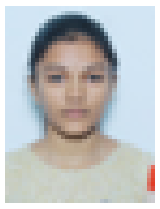


18951A1248
MALGAREDDY MANUSHA
9.27

IT

18951A1277
KANDULA SAHANA
9.18

CSE



18951A0506
PURUSHOTHAM AISHWARYA
9.55

CSE

18951A0565
KARANAM LAKSHMI MANOGNA
9.55

CSE

18951A0556
BOYAPATI JASWANTHI
9.45

CSE

18951A0597
NISHA KUMARI
9.45

CSE

18951A05E1
P SAI SAMYUKTHA
9.41

CSE

18951A0534
A M DIVYA
9.34

CSE

18951A05C8
P RUSHITHA
9.23

MECH

18951A0385
V SAI RAMA MOHAN MURTHY
8.73

MECH

19955A0315
P VENKATA RAO
8.73

MECH

18951A0374
T RAJNIKANTH
8.7

MECH

18951A0339
B JAHNAVI MANASWINI
8.68

MECH

19955A0311
PANDULA ROHITH
8.59

MECH

18951A0331
A GOUTHAM RAJ
8.55

CIVIL

18951A0153
VELAGANDULA PRATHEEK
9.27

CIVIL

19955A0112
BUDHARAPU SRIKANTH
9.23

CIVIL

19955A0102
BOBBILI AMULYA
9.2

CIVIL

19955A0101
AKOJI AKANKSHA
9.09

CIVIL

19955A0108
BOMMAKANTI NIVEDITHA
8.95

3rd YEAR TOPPERS

AERO

17951A2180
CHAMAKURA SAI PRIYA
9.8

AERO

17951A2136
K MADHULAALASA
9.73

AERO

17951A2173
C RASHMITHA
9.68

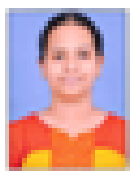
AERO

17951A21A8
R TEJASWI
9.64

AERO

17951A2189
GANGULA SHARVANI
9.6

ECE



17951A04H4
MACHAVARAM SARANYA
9.73

ECE

17951A04K3
MATTE SOUMYA REDDY
9.68

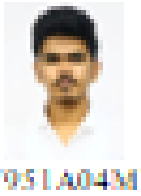
ECE

17951A04M7
SATAPATHY SUSRISUSMITHA
9.59

ECE

17951A0449
V HARSHA VARDHAN REDDY
9.55

ECE



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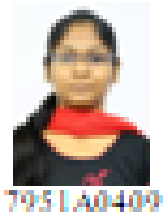
K SUKESH GOUD
9.55

ECE



17951A0409
S ANURADHA
9.5

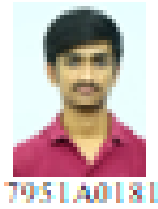
CIVIL

18955A0112
NARRA PAVANI
9.41

CIVIL

17951A0148
E NARESH GOUD
9.27

CIVIL



17951A0181
MANDADI SAIMADHAN REDDY
9.24

CIVIL

17951A0120
CHAVALLA GANESH
9.14

CIVIL

18955A0104
PALVAI DIVYA
9.09

IT

17951A1258
K PRIYANKA
9.36

IT

17951A12B2
P YOSHITHA
9.32

IT

17951A1279
G SHIVANI
9.18

IT

17951A1294
N SWETHA
9.18

IT

17951A1277
C SHARON PRIYANSH
9.12

IT

17951A1280
K SHIVANI REDDY
9.09

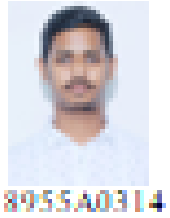
MECH

17951A0352
RUCHIKA SHAJI
9.48

MECH

17951A0339
V NAVYA SREE
9.24

MECH

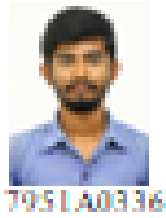


18955A0314
Y RAHUL
9.12

MECH

17951A0304
ABRAR AHMED
9.08

MECH



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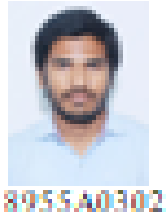
MOHAMMED OSMAAN ALI
9.08

MECH



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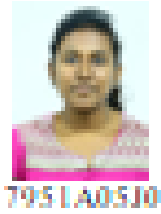
P CHETAN KUMAR
9.04

CSE

17951A05J9
BODDETI SRAVANI
9.5

CSE



17951A05J0
SOMA SHRENIKA
9.32

CSE

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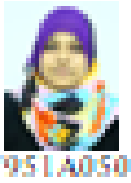
KANNAIAHGARI SAHITH
9.27

CSE

17951A0548
MALYALA DIVYA
9.18

CSE



17951A0506
AFREEN SULTANA
9.14

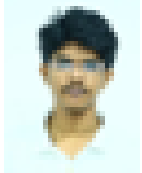
CSE

17951A05D1
B RAMYA REDDY
9.14

EEE

17951A0215
GURRAM BHAVYA
9

EEE



17951A0278
MUPPIDI SAIKRISHNA REDDY
8.96

EEE

18955A0210
KALALI MOHAN GOUD
8.96

EEE

17951A02A0
A TEJASHWINI
8.88

EEE

17951A0225
MONAGONI GREESHMA SAI
8.8

EEE

17951A0275
PEYYALA SAI SHREYA
8.8

EEE

17951A02A6
ANANTHOJI VIGNATHA
8.8

EEE

18955A0217
SHAIK YOUSUF AHMED
8.8

EEE

17951A0288
PEDDI SRAVANI
8.72

4TH YEAR TOPPERS

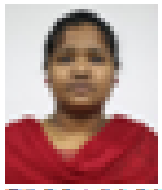
CIVIL

16951A0171
KARDANOOR SINDHU REDDY
9.81

CIVIL

17955A0123
MEERJUMLA NIKHIL KUMAR
9.67

CIVIL



17955A0151
MELAPU SWETHA
9.33

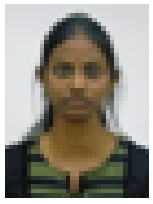
CIVIL

16951A0101
MOHAMMED ABDUL MAJID
9.29

CIVIL

17955A0148
K SRILEKHA
9.21

ECE



16951A04B0
MARISERLA RAMYA
9.27

ECE

16951A0446
RONDLA JHANSI
9.05

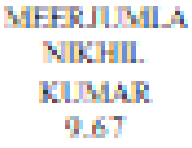
ECE

16951A0457
MANDA SINEETH KUMAR
8.91

ECE

16951A04B6
TENNETI ABHISHEK
8.87

ECE



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GUDA YAMINI
8.87

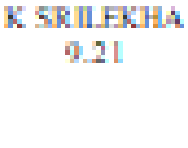
ECE

16951A0439
KALLURI HARSHINI
8.85

AERO

16951A2119
D GANGADHAR
9.13

AERO



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G SWETHA
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AERO

16951A2127
D JEEVANA
8.88

AERO

16951A2103
P AKASH
8.83

AERO

16951A2136
V NAGA SANTHOSHILAKSHMI
8.83

AERO

16951A2147
TIRUMALA RAJU PREETHI
8.83

AERO

16951A2142
NIKHIL PRIYA VALLABOJU
8.65

EEE

16951A0205
KANCHU BEERAIAH
8.83

EEE

16951A0207
BACHHU CHANDANA
8.79

EEE

17955A0225
V SHASHANK
8.63

EEE

16951A0215
D NAVEEN
8.42

EEE

16951A0221
GADDAM PRANATHI
8.33

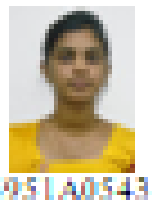
EEE

16951A0228
SANGEETHA CHOUDHARY
8.33

CSE

16951A0544
BATTU
GOWTHAMI
9.38

CSE



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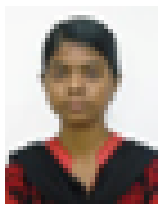
BANDARI
GODHA DEVI
9.25

CSE

16951A05K8
SAMALA
SRIHITHA
9.24

CSE



16951A0581
KONIKA
MALLIK
9.17

CSE

16951A0513
GADIPUDI
ALEKHYA
9.13

CSE

16951A0574
GANGAPALLI
LASYA
SRIRANGA
9.13

MECH

16951A0382
CHIKKA
SHIVA
PRASAD
9.3

MECH

16951A0325
KANNEGANT
I JAHNAVI
9.17

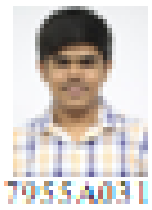
MECH

17955A0305
T
CHAITANYA
SAI
9.17

MECH

17955A0304
K B PRASAD
8.88

MECH



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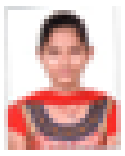
C PAVAN
KUMAR
8.71

MECH

16951A0312
V DINESH
KUMAR
8.63

IT



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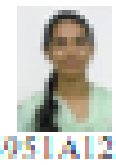
S V N S
SRAVANI
9.75

IT

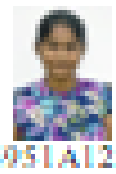
16951A1252
G V N
APOORVA
9.63

IT



16951A1236
V SAI
MEGHANA
9.58

IT



16951A1219
G
MRUDHULA
9.48

IT

16951A1241
KATREDDI SRI
SAI DURGA
9.13

India celebrates its 71st Republic Day

On the 26th January 2020, India celebrated its 71st Republic Day at Rajpath in New Delhi. This year's Republic Day parade saw India display its military prowess and cultural diversity. The event started with the Prime Minister of India, Narendra Modi, laying a wreath at the Amar Jawan Jyothi at India Gate, in remembrance of soldiers who sacrificed their lives for the country.The President of India, Ram Nath Kovind unfurled the national flag at Rajpath. It was followed by the National Anthem and the 21-gun salute. This year's Chief Guest was the President of Brazil Jair Bolsonaro for Republic Day celebrations, who won a land slide victory in presidential elections.This year's Republic Day parade was led by the Parade Commander, Lieutenant General Asit Mistry.

The medals awarded were Ati Vishisht Seva Medal, Sena Medal, Vishisht Seva Medal, among many others. The winners of highest gallantry awards included the winners of the Param Vir Chakra and the Ashok Chakra.This year also saw India's first woman parade adjutant , Captain Tanya Shergill. Daredevil acts displayed by all-women contingent of the Central Reserve Police Force (CPRF) made their debut at the Republic Parade and garnered huge applause from the thousands of people seated on both sides of Rajpath. Flypast by India Air Force fighter jets, and the newly acquired Apache helicopters enthralled the audience. In true patriotic spirit, our Chairman Marri Rajashekar Reddy garu, our Principal L.V. Narasimha Prasad garu and Vice Principal Shoba Rani garu inaugurated the flag-hoisting ceremony in our college campus, in the presence of many dignitaries and staff.

TECHNOLOGY FOR DESTRUCTION

Fears of a looming World War-III are growing after the US killed Iranian Major-General, Qassem Soleimani, Head of the elite Quds Force and Architect of Iran's spreading military influence in the Middle East, in an airstrike at Baghdad airport ordered by the President of United States, Donald Trump. The world is terrified of the fact that these modern warfare techniques, including small arm, artillery, rocket and missile systems, nuclear weapon, chemical warfare, biological warfare, fortification, tank, naval ship, submarine, military aircraft, warning systems, Unmanned Aerial Vehicles (UAV) and military communication, can result in catastrophic effects .The MQ9 Reaper drone, capable of carrying 500 pounds, air-to-ground and air-to-air missiles, are self sufficient to blow up a large area of a city. PHSAR Rifles, a laser array, capable of blinding and disorienting anyone caught in sight. The Active Denial System (ADS), shoots a stream of EM waves shorter than microwaves, which are instantly absorbed by the top layer of skin causing severe pain. The Laser avenger, only a few centimeters in diameter, is 20 times hotter than an electric stove and can chisel the artillery shells. XM25 Individual Airburst Weapon System (IAWS) can throw a grenade up to a range of 500m. Not to forget about the Nuclear bombs which can take down an entire city and leave the wounded civilian families a few generations to cure because of its ill effects.With some or the other sort of violence prevailing across the globe, World War 3 is inevitable, as experts are concerned. It just takes a second for a madman, stranded on piles of public wealth and political agendas, to pull the trigger for such deadly weapons to be used on world citizens who have nothing to do with these 'house of cards' acts yet need to face the wrath. The above mentioned advanced weaponries are like fuel to the fire to butcher the lives of innocent whose only mistake was to be born in a wrong country!!

-Abhinay Desabhatla, Editor

AUSTRALIA COMMITS CLIMATIC SUICIDE

Just when we thought the Amazon fires were devastating, to say the least, the Australian bushfires have started to take their place with absolutely no parameter for comparison. The Amazon fires led up to the annihilation of around 900,000 hectares of forest land. For good measure, a hectare is equivalent to 10,000 square meters. Yes. Now imagine eleven million hectares of land. 11 million. Let me do the math for you. That's ten zeroes after the 11.That's the area that has been affected since September of 2019. Half of Australia was in flames. Out of the 6 states, 3 (Western Australia, Victoria, and New South Wales) had been severely affected by the fires. Their wildlife is in extreme danger. Environmentalist experts fear that a billion animals have perished in the bushfires. The animals that however do escape the fires will continue to die in the coming weeks and months. They are severely injured, their paws are burned, and separated from their families and habitats. In addition to this dehydration, starvation and diseases will lead to the loss of all or most of the wildlife in Australia. However, this is not just the case of wildlife, like the Amazon fires. This is also a matter of human life. 200,000 homes were destroyed as 33 people were killed. A large portion of New South Wales has been evacuated, with only one or two exits out of town, while these towns are running out of food, water, and petrol. The death toll is expected to rise with dozens of people missing and many people already dying from these fires. Sydney was declared the hottest place on Earth on 2 Jan 2020, with temperatures rocketing past 50 degrees Celcius as the bushfires continue to blaze on. Thousands fled for their lives through the choking smoke after huge areas between Bateman's Bridge and the border with Victoria state were ruled "unsafe".Australia's annual industrial emissions amount up to 532 million tonnes of carbon dioxide. The bushfires, however, which have burnt through more than 6 million hectares across the country, are estimated to have released two-thirds of this amount - or about 350 million tonnes - of carbon dioxide into the atmosphere so far. That being said, the amount of carbon dioxide released by Australia in 8 months period of time was released in approximately 1 month.Until recently, Australia's forests were thought to reabsorb all the carbon released in bushfires which means that they were able to achieve zero carbon emissions. But scientists say that climate change, drought and escalating fires all combined together are reducing the forests' ability to reabsorb carbon.

And the real reason for the bushfires was due to the lack of rainfall last year. In addition to the fire, the winds are making them flare up more up to approximately 200ft high fires. If this is the case, it is devastating to state that the animals don't stand a chance. And what are the mitigation measures, you might ask? Funnily enough, Prime Minister Scott Morrison was seen to be missing in action, as he was taking a vacation in Hawaii last month amidst the early phases of the most devastating fires ever recorded. After this whole bushfire debacle, Australia's climatic condition was further deteriorated by the offset of rains right after the forest fire. One must wonder why rainfall would worsen the situation when it could actually aid in putting out the fires. While it does put out the flames, it also transfers sediments, ash comprising of organic carbon and inorganic elements, and debris to be washed away into the waterways. They harm the aquatic life in the rivers and streams. The Yarra River in Melbourne turned brown due to the dust in the rain pouring out from northern Victoria. But despite these heavy rains, by midday of the aftermath, several emergency warnings were issued. Now the real question arises 'What can we do to help?' Urge our government for financial aid. Or you can head over to donate online at NSW Rural Fire Service, Australian Red Cross, The Salvation Army Australia, Vinnies NSW, Food Bank Australia. Please do your part if you're in a position to donate. Remember to elect the leaders who support regulations for Climate Change. It is not an opinion anymore, it's a fact.

-Bhavana Priya, Editor

JNU VIOLANCE

One of India's most renowned universities plunged into violence and chaos on 5th January, 2020 after a mob of disguised men and women armed with sticks and rods attacked the students and the lecturers. The administration later on called the police.At least 23 were abraded, including JNU Students' Union (JNUSU) President Aishe Ghosh and college member Sucharita Sen and a minimum of forty students, lecturers and staff of JNU were admitted to hospital. JNUSU has blamed the Akhil Bharatiya Vidyarthi Parishad (ABVP), the student wing of the Rashtriya Swayamsevak Sangh (RSS), for the violence.While the rationale for the violence remained unclear, the violence began once a group of students opposing the registration method entered the premises and broke property. 2 days after the mob attack on JNU campus, Old Delhi Police requested the eyewitnesses to share with them the photos, footage, and other information of the January 5 violence.At intervals, students and members of the public were organizing protests across the country against the JNU violence. Hundreds gathered at the Gateway of India in Mumbai raising slogans and demanding rigorous action against the assailants.The main reason for the protest was that the students had been complaining against an increase in hostel fees for the past few months, blamed it on the Akhil Bharatiya Vidyarthi Parishad (ABVP), a right-wing student body linked to the BJP party. However, ABVP has denied the allegations.

-Mokshitha, Editor

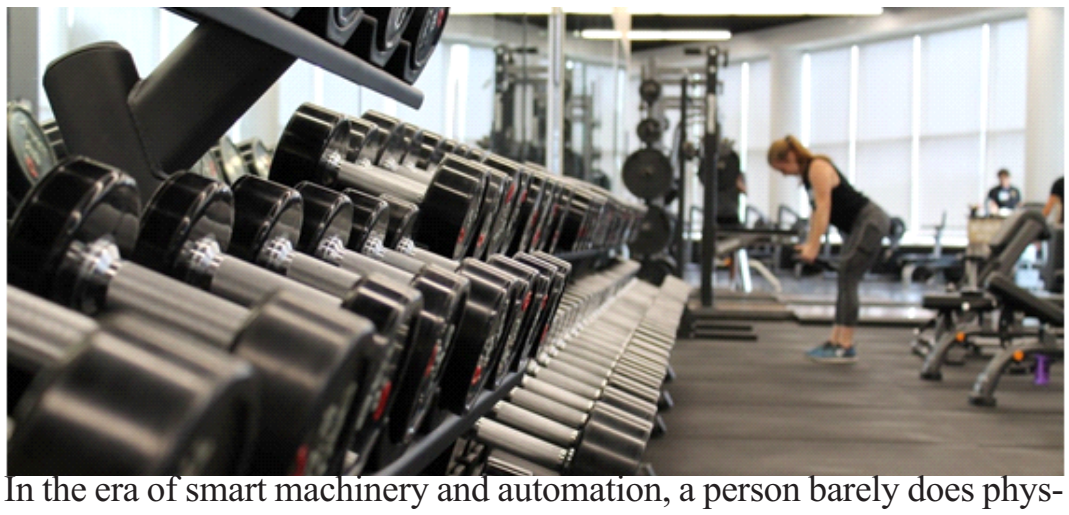
FIRST CDS OF INDIA APPOINTED

In his speech on the Independence Day of 2019, Prime Minister Narendra Modi disclosed about the formation of the Chief of Defence Staff (CDS) post. The 30th of December 2019 saw the appointment of General Bipin Rawat as the first Chief of Defence Staff of India, just a day before he was to retire from service as the 27th Chief of the Army Staff.The newly created Department of Military Affairs will also be helmed by the CDS, General Bipin Rawat.As the government amended the rules extending the age of retirement to 65 years, General Rawat will serve a tenure of three years. Facilitating the restructuring of military commands for optimal utilisation of resources by aligning the operations in logistics, transport, training, support services, communications, repairs and maintenance of the three services will be a key mandate of the CDS. Also, the CDS will be commanding the tri-service agencies, organisations and commands relating to cyber and space and will serve as the Military Adviser to the Nuclear Command Authority.

The CDS will also be a member of Defence Acquisition Council chaired by the Defence Minister and Defence Planning Committee chaired by the NSA.

-Moulsree Srivastava, Deputy Editor-in-Chief

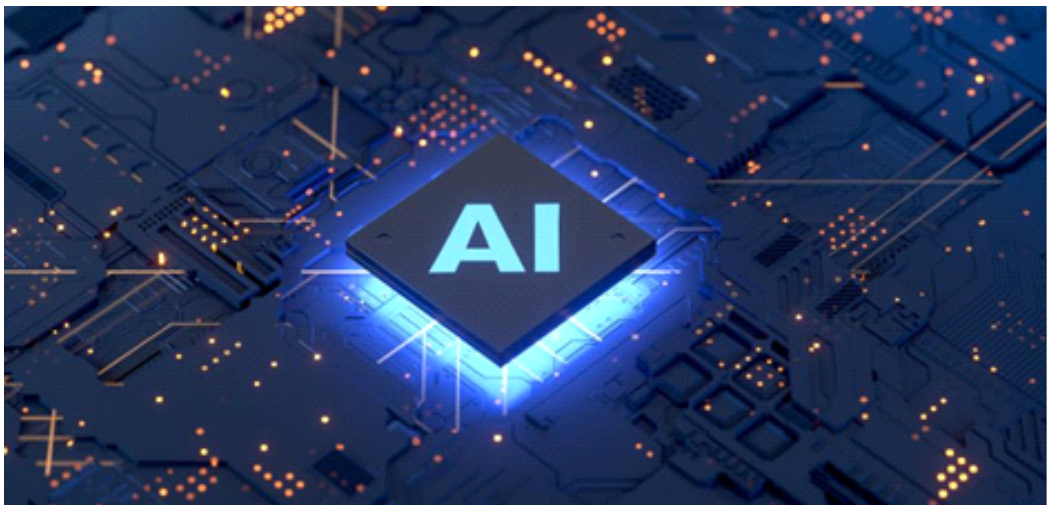
ARE YOU REALLY GETTING FIT?



In the era of smart machinery and automation, a person barely does physical work. The advancement of technology has definitely helped us to get things done faster with fewer efforts but has also made us lazy. Not having a lot of physical activities results in obesity and many health issues are being faced by the people. As soon as a person becomes physically unfit, they plan a crash diet using the help of internet fads to lose weight. But the question is, should they really lose weight or just lose fat? Crash diet definitely helps in lose my weight but the person loses the nutrients which his body needs for a healthy living. A lot of people who follow the crash diet look weak and these people tend to fall sick more often as it can reduce metabolic rate, cause dehydration, trigger heart issues and leave you with low energy levels. What is the right solution for all this?A healthy lifestyle is the key. Know about your body. Avoid alcohol intake, sugary foods and all the fancy junk food available. Fit yourself into a healthy lifestyle which starts with working out to keep your metabolic rate higher, and to taking a nutritional diet which doesn't miss a single nutrient your body needs. Increasing the amount of dietary soluble fiber, lean protein, and vitamins make you healthier. The weight does not really make a big difference when your body is full of nutrients and not fat. Being physically fit makes you mentally happy and can make things happen even faster.

- Rahul Sattarapu, Sub Editor

GOODBYE SIRI AND ALEXA!



Samsung is set to unveil its new AI enabled human by the name of Neon at CES 2020 (Consumers Electronics Show) which is going to take place in Las Vegas from 7th to 10th of January, 2020. Neon is one of the most anticipated rollouts and is said to go significantly beyond the capabilities of Samsung's current voice assistant Bixby. The company has not called Neon a voice assistant but instead they have called it using phrases such as 'artificial human' and 'artificial intelligence being'. The patent of Neon has included an array of services so it may eventually have a broad application across multiple fields of entertainment. Although Neon's personal website does not give away a lot, it is being hyped to be one of the best products out there, especially with the company saying that it will be smart enough to act as an AI companion, or dare I say "a best friend". The idea of having augmented reality embedded in an artificial being is bizarre and now that something like this actually exists, it gives us a reality check of how far technology has evolved.

-Rohith D, Editor

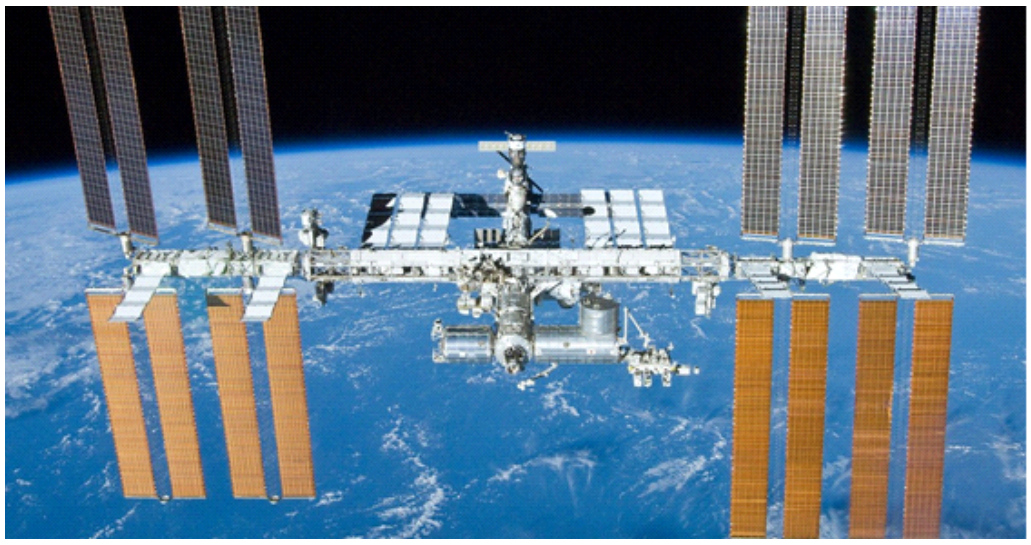
QRSAM

Quick Reaction Surface-to-Air Missile (QRSAM) is a missile developed by the Defence Research and Development Organisation (DRDO) in association with Bharat Electronics Limited and Bharat Dynamics Limited for the Indian Army. The systems of QRSAM are equipped with indigenously developed technology that will help the Indian Navy in Inertial Navigation System, Data Link and RF seeker. It works on solid fuel propulsion and is planned to be in service before 2021. What actually is QRSAM? The QRSAM weapon system, which operates on the move, comprises fully automated command and control, active array battery surveillance radar, active array malfunction battery radar and launcher. This all-terrain and all-weather missile with electronic counter-measures against jamming by enemy aircraft can be mounted on a truck and stored in a canister. This missile can be rotated 360 degree while on the way to its target. QRSAM is used as an anti-sea skimmer from a ship against low flying attacking missiles. QRSAM employs dual thrust propulsion stage using high-energy solid propellant.

According to DRDO, two different tests were conducted for different altitude and conditions. DRDO closely observed both tests and found that flights successfully demonstrated the Aerodynamics, Robust control, Structural performance and propulsion, thus proving the design configuration. Electro-Optical Systems, Radars, Telemetry and other equipment have monitored and tracked the missiles through the entire flights. DRDO announced that all the mission objectives have been met.

-Sukesh, Editor

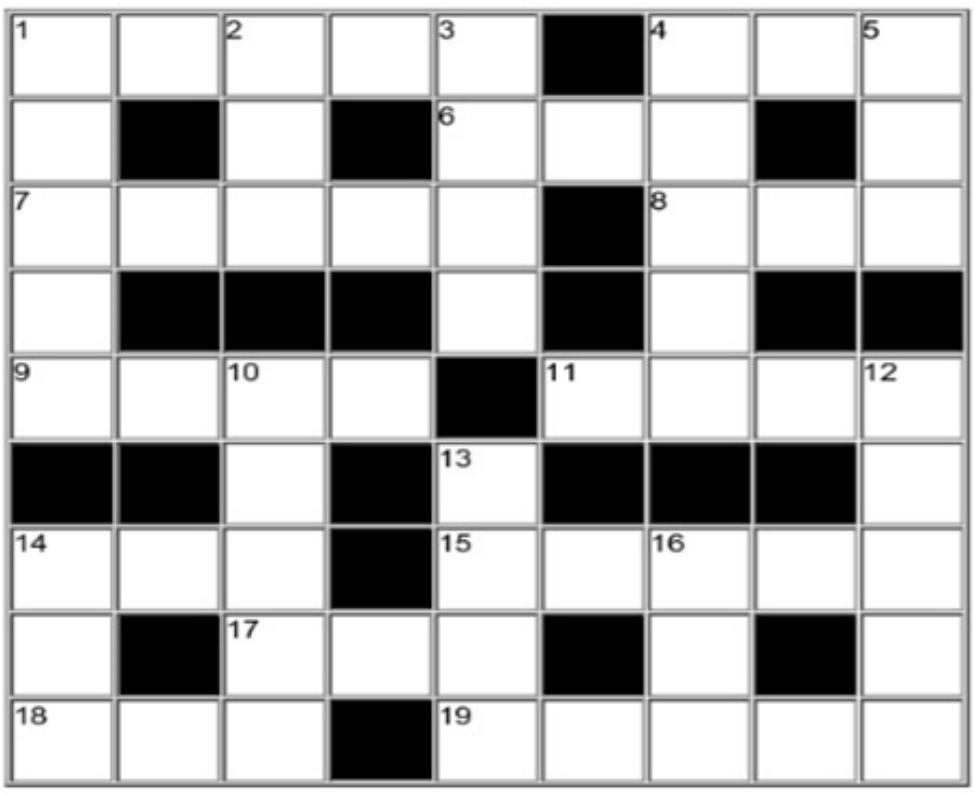
INTERNATIONAL SPACE STATION COMPUTER GETS A HEART TRANSPLANT



The Data Management System (DMS) computers in the Russian Zvezda module was built over 20 years ago such that two fault-tolerant computers collect data, provide navigation, communications and operations for the Russian segment. These computers are required for International Space Station operations, and a sudden breakdown in any of these systems could lead to catastrophic consequences. To ensure continuity, three units work in parallel with two active and one standby to take over if one fails. A fourth computer is kept as spare that is used as soon as one of the computers in active duty has problems.However, these computers were not built to last and years of operations have taken a toll on their memory modules. The practice of swapping and sending them back for repair on Earth was found to be unsustainable.Hence in 2015, This decision to print new circuit boards to help keep the ISS in orbit was made. Once the circuit boards were assembled to be launched to the ISS in 2018, new teams of trained astronauts had to perform the "heart transplant".The operation was successfully carried out at the start of the last year. As another space station's computers began to experience failures in the November 2019, the older computers were replaced. The ESA has now confirmed that all of the space station's systems are now working properly and keeping the ISS in a stable orbit. The goal is to extend the space station's life to the year 2030 and potentially beyond.Once the ISS becomes obsolete, it will be deorbited into the Pacific Ocean.

-Vennela Manmohan, Editor

ARCADE SECTION



Crossword

Across
1. Cook on gridiron
4. Work with shovel
6. Belonging to us
7. Repeated another time
8. Small insect
9. 10 cent coin
11. Frozen precipitation
14. Food tin
15. Grayish green
17. Hooting bird
18. Sticky black substance
19. A lollipop

Down
1. Protect
2. Northern Ireland army
3. Not short
4. Empty liquid from container
5. Acquire
10. Not major
12. Fully of weeds
13. Tootsie _____
14. Feline
16. Sick

SUDOKU

						6	8	
				7	3			9
3		9					4	5
4	9							
8		3		5		9		2
							3	6
9	6					3		8
7			6	8				
	2	8						

Previous answers

8	4	2	3	5	9	7	6	1
1	3	7	6	8	4	9	5	2
9	5	6	2	7	1	3	8	4
6	7	9	1	3	8	4	2	5
5	2	3	4	6	7	1	9	8
4	8	1	5	9	2	6	7	3
7	9	5	8	1	3	2	4	6
3	6	4	7	2	5	8	1	9
2	1	8	9	4	6	5	3	7

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BRAIN TEASERS

1. How many sides does a circle have?
2. If a monkey, a squirrel, and a bird are racing to the top of a coconut tree, who will get the banana first?
3. Why is it against the law for a man living in North Carolina to be buried in south Carolina
4. If you had only one match and entered a dark room containing some kindling wood and a newspaper which would you light first?
5. Some months have 31 days other have 30 days but how many have 28 days?
6. Is it legal for a man in Jharkhand to marry his widows Sister?
7. There was once a lady who really liked pink
In her cozy, little one story house everything was pink
Even her dog was pink, her hair, her carpet, everything
What color are her stairs?
8. A truck driver is going down a one way street in wrong Way and passes at least 10cops why is he not caught?
9. Which word in the eng Lang is always spelled incorrectly?
10. I'm my father's child and my mother's child but I'm nobody's son who am i?
11. If you spell as (sit in the tub) s-o-a-k and you (spell a funny story) j-o-k-e, how do you spell “the white of an egg”?

Send your answers to iarethecompendium@gmail.com